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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,914	03/16/2004	Nobuyoshi Karashima	ABE-022	9622
20374	7590	11/01/2007	EXAMINER	
KUBOVCIK & KUBOVCIK SUITE 710 900 17TH STREET NW WASHINGTON, DC 20006			VU, QUYNH-NHU HOANG	
		ART UNIT		PAPER NUMBER
		3763		
		MAIL DATE	DELIVERY MODE	
		11/01/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/800,914	KARASHIMA, NOBUYOSHI
	<b>Examiner</b>	<b>Art Unit</b>
	Quynh-Nhu H. Vu	3763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 16 March 2004.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-13 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-13 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 16 March 2004 is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO/SB/08)  
     Paper No(s)/Mail Date 3/16/04.

4) Interview Summary (PTO-413)  
     Paper No(s)/Mail Date. \_\_\_\_\_.  
 5) Notice of Informal Patent Application  
 6) Other: \_\_\_\_\_.

**DETAILED ACTION*****Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jensen (US 2003/0044755).

Jensen discloses, Figs. 1-6, a medical device comprising: a positive electrode section 41, 50; a negative electrode section 46, 56 or 55 (Fig. 1); a power source 20 supplying an electric current to the positive electrode section and negative electrode section, and a controller controlling the value and electric conduction time of the current supplied from the power source (Figs. 1-4). Jensen's device for analyzing tooth structure, restorative materials within a tooth structure, therefore, it must allow the drug solution to permeate into a lesion obtained by conducting current between the positive electrode section and negative electrode; wherein the positive electrode section and negative electrode section are given a handleable stick shape. The positive electrode section is inherently provide with a drug solution and contacts with a lesion (such as tooth surface); and the negative electrode section is contact with a part of the body in the vicinity of the lesion (tooth surface).

It has been held that the recitation that a positive and negative electrode section is "capable of retaining a drug solution" performing a function is not a positive limitation. It does not constitute a limitation in any patentable sense. In re Hutchison, 69 USPQ 138.

Art Unit: 3763

Regarding claim 2, it is well known in the medical art (specially in the dental art) that the drug solution retainer is provided with a mouth piece provided at the tip end of the stick in an attachable and detachable manner and a brush fixed on the mouth piece and the solution retainer is provided with a cylindrical head provided at the tip end of the stick and a sponge provided at the cylindrical head in an attachable and detachable manner. It has been held that a recitation "attachable and detachable" with respect to the manner in which a claimed apparatus is intended use.

Regarding claims 3-4, the controller, in Figs. 1-4, is able to set the current value, voltage value and electric conduction film for the conduction in response to type of the target viscous membrane, thickness of the target skin and area of the target at the lesion (also see para [0087-0088]). An alarm 101 indicating the progress of the electric conduction time set by the controller.

Regarding claim 7, the lesion is an oral lesion such as teeth, dental pulp or root canal or a superficial lesion on the body (see abstract or para [0022]))

Regarding claim 8, the current value is less than 300 micro-amps, more preferable between 30-300 micro-amps, which is in the range of 40 micro-amps. Jensen does not disclose that the electric conduction time is 8 to 30 seconds when the lesion is an oral lesion in humans. However, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to set up the times between 8 to 30 seconds, since it has been held that where the general conditions of a claim are discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Regarding claims 9-13, they encompass the same scope of the invention as to that of claims 1-8 except they are drafted in method format instead of apparatus format. The claim(s) is/are therefore rejected for the same reason as set forth above.

Art Unit: 3763

Claims 6 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jensen (US 2003/0044755) in view of Keusch et al. (US 6,635,045).

Jensen discloses the invention substantially as claimed. Jensen does not clearly disclose that a 1 to 3% sodium chloride solution is impregnated into the negative electrode section.

Keusch discloses a sodium chloride impregnated in to the negative electrode section. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to provide a sodium chloride solution, as taught by Keusch into the device of Jensen, to inhibit electrode corrosion. Keusch does not expressly teach that the percent of sodium chloride about 1 to 3%. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to provide the value 1 to 3% of sodium chloride, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quynh-Nhu H. Vu whose telephone number is 571-272-3228. The examiner can normally be reached on 6:00 am to 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nicholas Lucchesi can be reached on 571-272-4977. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3763

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Quynh-Nhu H. Vu  
Examiner  
Art Unit 3763



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